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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,256	03/23/2006	Koji Sahashi	1761.1087	2988
21171 7590 07/09/2008 STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER WONG, ALBERT KANG	
			ART UNIT	PAPER NUMBER
			2612	
			MAIL DATE	DELIVERY MODE
			07/09/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/573,256

**Applicant(s)**

SAHASHI ET AL.

**Examiner**

ALBERT K. WONG

**Art Unit**

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 March 2008.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-6 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 10 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

1. This Office action is in response to the amendment filed March 10, 2008. Claims 1-6 are pending. The prior rejections have been modified to address the amendment to the claims.

However, the substance of the rejections is essentially the same. The objections to the drawing and claim 1 has been withdrawn in view of the amendment. The amendment to the drawing has been approved by the Examiner.

2. The Examiner thanks applicant for providing an explanation, in response to a telephonic inquiry, pertaining to the prior art reference cited on page 2 of the specification.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
6. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Breed (2003/0009270).
7. Regarding claim 1, Figure 7 of applicant's specification teaches the claimed inner and outer members, the plurality of rolling elements, sensor, and sensor transmitting section. The structure in the prior art shows the knuckle attached to the outer periphery of the outer member (which forms the bearing structure). The prior art does not teach an electric power receiving section for receiving electric power wirelessly. Breed teaches a variety of different sensors (including ABS) in a vehicle. Further, Breed teaches in paragraph 0043 that the sensors may derive their power from an RF interrogator as per conventional RFID devices. It would have been obvious to combine the teachings since they are in the same field of endeavor to gain an ABS sensor system that does not require a wire or a local generator. Further, it is conventional to use an antenna as a source of RF power in RFID systems. It would have been obvious to locate the antenna on the knuckle since this is a stable point that is near the existing sensor output. Alternatively, the claim may be interpreted as merely an antenna that is coupled to the knuckle since the claim merely recites that the knuckle is "provided with an antenna." The prior art shows an antenna on the outer member which itself is coupled to the knuckle.
8. Regarding claim 2, the location of the sensor transmitting section and the electrical power receiving section within the knuckle would have been obvious since this is a location close to the sensor and the transmission and reception of EM waves would not be blocked.

9. Regarding claims 3-4, it is conventional to integrate a sensor, a transmitter, and a power receiver in an RFID device for compactness. Thus, it would have been obvious to use conventional items for their known functions.
10. Regarding claim 5, the particular details of the sensor section are considered conventional in ABS sensors. The sensor transmitting section and the power receiving section has been addressed in prior claims. It would have been obvious to use a conventional sensor for its known function.
11. Regarding claim 6, see figure 7 of the instant application.

#### **Remarks**

12. Applicant argues that it would not have been obvious to locate the antenna on the knuckle. The Examiner disagrees. Interpreting the claims in its broadest reasonable interpretation does not require the antenna to be located on the knuckle. The claims merely recites that the knuckle is provided with an antenna. This may be interpreted as the knuckle being coupled to an antenna which is shown in the admitted prior art. Further, even if the claim is interpreted as a knuckle directly coupled to an antenna, it is the Examiner's position that this would have been obvious. One of ordinary skill in the art would recognize the basis theory of electromagnetism and wireless signal transmission. One would recognize that the coupling of signals between a transmitter and a receiver is affected by the orientation of the antennas and the presence of interfering obstacles. Just as a layperson changes the orientation of an antenna to achieve better signal reception on a television, the same principle would apply to the instant invention. Locating the antenna at a position for better signal reception would be within the level of skill in the art. Under the decision of KSR, the courts have held that changes that are

based on common sense or yield predictable results may be considered obvious. Based on the knowledge within the art, it would have been obvious to locate the antenna at any suitable position to yield the best signal reception. A location on the knuckle would certainly fall with such a location on a vehicle.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALBERT K. WONG whose telephone number is (571)272-3057. The examiner can normally be reached on M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian A. Zimmerman can be reached on 571-272-3059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Albert K Wong/  
Primary Examiner, Art Unit 2612

July 2, 2008